

Information Required for Review of Requests for Approvals of Heavy-Duty Electric Vehicles and Non-Emitting Hybrid Vehicles

v2015-05-21

The Air Resources Board is required to certify all on-road vehicles. The certification protocols and test procedures for zero-emission heavy-duty vehicles (HD-ZEV) with gross vehicle weight rating (GVWR) above 14,000 pounds are currently in the development process. Prior to finalization and adoption of HD-ZEV certification protocols and test procedures, vehicle manufacturers may request a letter of Approval which confirms that the vehicles are correctly identified as electric vehicles or non-emitting hybrid vehicles and are therefore legal for sale in California without an Executive Order, contingent on the manufacturer demonstrating that the vehicles do not utilize combustion and do not emit any regulated vehicle exhaust emissions or fuel-based evaporative emissions. Typical examples are battery electric vehicles, hydrogen fuel cell vehicles, and non-emitting hybrids using flywheels, hydraulic storage, or other non-emitting means of propulsion energy.

The following list is a summary of the information required to demonstrate that the heavy-duty vehicles do not utilize combustion and do not emit any regulated vehicle exhaust emissions or fuel-based evaporative emissions. Submit a technical document which provides the following information:

1. Cover letter requesting a letter of Approval, addressed to the division chief of the Mobile Source Operations Division.
2. Statement of the intended service class, and a description of how the vehicle will meet the demands of the duty cycle(s) of the intended service class over the duration of the applicable useful life.
3. Declare an engine family name with zero displacement in characters 6-9.
4. Longevity information of the propulsion components over the duration of the applicable useful life.
5. Technical description of the propulsion components, and how the components operate individually and as a whole system, including diagrams, photographs, etc. As applicable, must include:
 - a. Material(s), construction, physical form factor, and dimensions
 - b. Capacity of batteries, storage tanks, etc. and testing protocols used in determining capacity
 - c. Intended operating conditions and expected longevity under these conditions
 - d. Description of recharging procedures and any fast recharging capability
 - e. Warranties on components and maintenance schedules
 - f. End-of-life disposal plan
6. Description of environmental controls included in the vehicles.
7. Complete list of part numbers of the battery electric and fuel cell electric components.
8. Complete list of vehicle models, and a description of any chassis weight or range variations.
9. Label samples which adhere to the labeling requirements for the intended service class. The label must include the following statement: 'This vehicle is Approved for Sale in California as a heavy-duty [TYPE] vehicle' where [TYPE] is either 'Electric', 'Hydrogen Fuel Cell', or 'Non-Emitting Hybrid' The label must state the vehicle model and chassis variation.
10. Statement of compliance which attests to the adherence with DOT / NHTSA / CHP requirements.
11. Include an estimate of the number of sales for the vehicles.

In all documentation do not use the phrase 'Zero-Emission' to avoid conflict with future heavy-duty ZEV regulations.